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(54) Digital colour printer system

(57) A system (10) selectively enables a printer (20) to deposit on a sheet C,M, Y and K color dots at each of the plurality of pixel locations to produce a color image. The system (10) comprises a memory (14) for storing C, M, Y and K color values for each pixel in the color image and a processor (12) for controlling selective deposition of the C, M, Y and K colors. The processor (12) determines a gray value for each pixel location from values stored in the C, M, and Y color planes (28, 30, 32). The processor (12) subtracts the determined gray value from the C, M, and Y values which correspond to the pixel location and then determines a relationship of the gray value to a non-linear function and in dependence upon the relationship alters the C, M and Y pixel values accordingly. The processor (12) either (1) adds the gray value back to the C, M, and Y values for the pixel location, or (2) adds a first portion of the gray value to the C, M, and Y values for the pixel location and a second portion of the gray value to the K value for the pixel location; or (3) adds all of the gray value to a K value for the pixel location. As a result, the C, M, Y and K values are altered in accordance with the determined gray value. The altered color values are then prioritized and the processor (12) determines which colors should be printed at each pixel location and diffuses color error values to neighboring pixel locations after such determination. The prioritization procedure enables print priority to be given to either the brightest color dot or to the color dot that is most visible to the human eye.

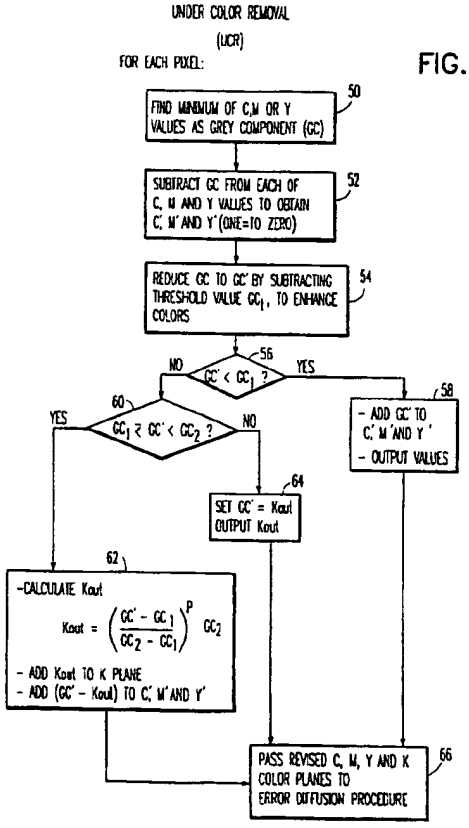

FIG. 2

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EUROPEAN SEARCH REPORT

Application Number
EP 95 30 0498

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
Y	EP-A-0 569 206 (HEWLETT-PACKARD COMPANY) * page 36, line 46 - page 38, line 18 *	1-4, 7-13,15	H04N1/60 H04N1/52
Y	DE-A-34 47 682 (DAINIPPON SCREEN MANUFACTURING CO.) * page 27, line 1 - page 29, last paragraph *	1-4, 7-13,15	
A	GB-A-2 202 708 (MITSUBISHI DENKI K. K.)		
A	US-A-2 807 660 (H. E. ROSE)		
A	US-A-4 682 216 (T. SASAKI ET AL.)		

TECHNICAL FIELDS SEARCHED (Int.Cl.6)
H04N

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	22 March 1996	De Roeck, A

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
L : document cited for other reasons

& : member of the same patent family, corresponding document

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